

## MULTI-TIER APPLICATION ARCHITECTURE

### ABSTRACT

The present invention aims at providing a multi-tier application architecture that fast accesses objects and has a fail-safe function against middletier crash. A framework mediates between an application and a middletier and allows the middletier to execute an object fetched by the application from a cache. When an object becomes stale, the framework repeatedly refreshes that object within a limited number of retries. When the refresh succeeds, the framework returns the object to the cache and again allows the middletier to execute the object. When the refresh does not succeed within the specified number of retries, the framework quits the application in a fail-safe state.